ABAGYAN, G.V.; BAYATYAN, G.L.; MATOYAN, D.S.; MELIKYAN, E.G.

Semiautomatic computor of second differences. Prib.i tekh.eksp. no.4:131-132 Jl-Ag '60. (MIRA 13:9)

1. Yerevanskiy gosudarstvennyy universitet.
(Calculating machines)

BUTYAGIN, P.Yu.; ABAGYAN, G.V.

"Formation of free radicals and migration of free valences under the influence of mechanical forces on proteins."

Report presented at the Symposium for Physical Chemistry of Biogenic Macromolecules, Jena, GDR, 18-21 Sep 63.

L 14045-65

ACCESSION NR: AP4044964

SUBMITTED: 11Apr64 ENCL: 01

SUB CODE: OP, SS NO REF SOV: 001 OTHER: 009

Card 3/4

L 05069-67 EWT(m) JR/GD

ACC NR: AT6027933 SOURCE CODE: UR/0000/66/000/000/0170/0174

AUTHOR: Abagyan, A. A.; Belov, S. P.; Kazanskiy, Yu. A.; Mazin, V. I.

ORG: None

TITLE: Measurement and calculation of the coefficients of secondary gamma-radiation

SOURCE: Voprosy fiziki zashchity reaktorov (Problems in physics of reactor shielding); sbornik statey, no. 2. Moscow, Atomizdat, 1966, 170-174

TOPIC TAGS: gamma radiation, neutron, radiation shielding, capture cross section

ABSTRACT: The authors consider the coefficient of secondary emission β which expresses the ratio of the total number, dose or energy of capture γ-quanta to the total number of neutrons emitted from a given shielding material. The general expression for this coefficient is

$$\beta = \frac{\sum_i \int \Phi(r, \Omega, E)\, \Sigma_{n,i}(E)\, \eta_i(E)\, \psi(r, r_s, E_i)\, d\Omega dE dV ds}{\int \Phi(r_s, \Omega, E)\, d\Omega dE ds},$$

where $\Phi(r, \Omega, E)$ is the neutron flux at the point r in the unit energy interval at energy E and in the unit solid angle about the direction Ω; $\Sigma_{n,\gamma}(E)$ is the radiation capture cross section for neutrons of energy E; $\eta_i(E)$ is the yield of γ-quanta of

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energy E_γ per capture of a single neutron with energy E; $\psi(r, r_s, E_\gamma)$ is the function which gives the attenuation of the stream of γ-quanta with energy E_γ from the point of γ-quantum production r to the points r_s on the surface. A formula is derived for the asymptotic value of β determined by the physical properties of the shielding material alone. A comparison of theoretical and experimental asymptotic values of β shows a systematic divergence by a factor of approximately 2.5, the theoretical data being overestimated. The reason for the divergence is assumed to be inaccurate determination of neutron intensities at the boundary. In spite of the discrepancy between experimental and theoretical data, the nearly constant divergence obtained for various elements with large, small and moderate capture cross sections (tungsten, lead, iron and nickel) indicates that the proposed method may be used for calculating the asymptotic values of β with an accuracy of 30% if a correction factor of 2.6 is used. The authors thank S. G. Tsypin and V. Ya. Pupko for interest in the work and useful remarks. Orig. art. has: 3 figures, 6 formulas.

SUB CODE: 18/ SUBM DATE: 12Jan66/ ORIG REF: 003

ABAGYAN, G.V.; BUTYAGIN, P.Yu.

Study of the mechanical destruction of gelatin using the method of electron paramagnetic resonance. Biofizika 9 no.2:180-183 '64.
(MIRA 17:12)

1. Institut khimicheskoy fiziki AN SSSR, Moskva.

ABAGYAN, G.V.; BUTYAGIN, P.Yu.

Sequence of free radical reactions as affected by mechanical actions on protein molecules. Dokl. AN SSSR 154 no.6:1444-1447 F '64.
(MIRA 17:2)

1. Institut khimicheskoy fiziki AN SSSR. Predstavleno akademikom V.N. Kondrat'yevym.

ABAGYAN, G.V.; BUTYAGIN, P.Yu.

Mechanical degradation of polysaccharides studies by the electron paramagnetic resonance method. Vysokom. soed. 7 no.8:1410-1414 Ag '65. (MIRA 18:9)

1. Institut khimicheskoy fiziki AN SSSR.

ABAGYAN, G.V.; BUTYAGIN, P.Yu.

Electron paramagnetic resonance spectra observed during mechanical treatment of DNA preparations. Biofizika 10 no.5:763-765 '65.
(MIRA 18:10)

1. Institut khimicheskoy fiziki AN SSSR, Moskva.

ABAGYAN, A. A., ORLOV, M. YA., NIKOLAYEV, M. N., AND GOL'TSEV, V. I.

Neutron Propagation in the Nickel Screen of a Fast Reactor.

report submitted for the IAEA Seminar on the Physics of Fast and Intermediate Reactors, Vienna, 3-11 Aug 1961.

ACCESSION NR: AT4019028 S/0000/63/000/000/0007/0024

AUTHOR: Abagyan, A. A.; Orlov, V. V.; Rodionov, G. I.

TITLE: The functions of neutron danger in the design of radiation shielding

SOURCE: Voprosy* fiziki zashchity* reaktorov; sbornik statey (Problems in physics of reactor shielding; collection of articles). Moscow, Gosatomizdat, 1963, 7-24

TOPIC TAGS: reactor shielding, radiation hazard, neutron, neutron danger calculation, conjugate equation

ABSTRACT: The authors note that in the design of nuclear reactors the use of conjugate equations has proven to be extremely fruitful. In the present work, problems of the conjugate equation theory are discussed in the light of the study and calculation of radiation shielding. The basic problems encountered in the calculation of shielding are the computations of the following values: a) the neutron flow behind the shielding and the dose created by these neutrons; b) the flow and dose of gamma quanta behind the shielding; c) the integral flows of neutrons incident to individual structural elements of the reactor and the shielding, for the purpose of estimating the degree of radiation impairment of the metals; d) thermal emissions in individual structural elements of the reactor and shielding, arising as the result of gamma radiation absorption, and also deceleration and absorption

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ACCESSION NR: AT4019028

of neutrons. The different role (and, hence, danger) of the neutron in the reactor and in the shielding is noted. Of the possible applications of conjugate functions to the theory of perturbations, the authors single out two for special consideration. In the first place, a knowledge of the conjugate function makes it possible to select the most rational positioning of the materials in the shielding. In the second place, it makes it possible to derive the variations of the values of interest to the specialist (dosages, thermal emissions, etc.), connected with certain changes in the structure and planes of interaction, and also with effects not previously considered, without the repetition of unwieldy computations, but merely through the application of the perturbation theory ratio. From this point of view, the authors consider and derive the formulas of this theory and certain functions in the theory of shielding. The use of the method of consecutive approximations for the determination of the optimal disposition of shielding materials is considered, as well as the efficiency function of the shielding materials themselves. The article concludes with a study of certain effects in shielding made of iron (and of iron with 1% by weight of boron), 20 cm thick, in the light of the theory of perturbations. "The authors express their gratitude to A. I. Leypunskiy, V. Ya. Pupko and E. Ye. Petrov for their valuable counsel and commentary." Orig. art. has: 52 formulas, 9 figures and 4 tables.

ASSOCIATION: none

Card 2/3

ACCESSION NR: AT4019028

SUBMITTED: 14Aug63 DATE ACQ: 27Feb64 ENCL: 00

SUB CODE: NS, MM NO REF SOV: 005 OTHER: 002

Card 3/3

L 05053-67 EWT(m) JR/GD

ACC NR: AT6027917 SOURCE CODE: UR/0000/66/000/000/0005/0021

AUTHOR: Orlov, V. V.; Abagyan, A. A.; Fedorenko, R. P.; Dubinin, A. A.; Suvorov, A. P.

45
B+1

ORG: None

TITLE: Optimizing the physical characteristics of radiation shielding 19

SOURCE: Voprosy fiziki zashchity reaktorov (Problems in physics of reactor shielding); sbornik statey, no. 2. Moscow, Atomizdat, 1966, 5-21

TOPIC TAGS: radiation shielding, variational problem, successive approximation, perturbation theory, REACTOR SHIELDING

ABSTRACT: The authors consider the problem of selecting the ratio of components in reactor shielding to give minimum weight or overall dimensions for a given reduction in radiation intensity or to achieve a minimum radiation dose for given shielding weight or dimensions. The problem is formulated as a variational problem on the optimum of some quantity when given conditions are imposed on other quantities. The various approaches to solution of the problem given in the literature are briefly reviewed. The physical characteristics of the shielding (neutron and gamma doses, heat release, weight, etc.) are considered within the framework of perturbation theory and the concept of functions of effectiveness of shielding materials is intro-

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L 05053-67

ACC NR: AT6027917

duced, i. e. functions which give information on the changes in various quantities under given conditions which result from some small change in the densities of the materials. The classical methods of variational calculus are used for determining optimum conditions for functionals representing the various physical characteristics of the shielding. The method of successive approximations is used for solving the problem of optimizing the distribution of shielding components in the general case. An example is given illustrating application of the proposed method. Orig. art. has: 9 figures, 31 formulas.

SUB CODE: 18/ SUBM DATE: 12Jan66/ ORIG REF: 014/ OTH REF: 002

Card 2/2

L 05057-67 EWT(m)/EWP(t)/ETI IJP(c) JD/HW/JR/GD

ACC NR: AT6027932 SOURCE CODE: UR/0000/66/000/000/0164/0169

AUTHOR: Abagyan, A. A.; Belov, S. P.; Kazanskiy, Yu. A.; Popov, V. I.; Fadeyev, I. A.; Dubinin, A. A.

ORG: None

TITLE: On the function of effectiveness of shielding materials with respect to capture gamma-radiation

SOURCE: Voprosy fiziki zashchity reaktorov (Problems in physics of reactor shielding); sbornik statey, no. 2. Moscow, Atomizdat, 1966, 164-169

TOPIC TAGS: radiation shielding, radiative capture, gamma radiation

ABSTRACT: The authors compare experimental and theoretical data on the function of effectiveness of shielding materials with respect to capture γ-radiation in nickel. The function of effectiveness is expressed as a linear combination of quantities of the type h_{Ap}

$$f(x) = h_{Ap} - \frac{\rho_B}{\rho_A} h_{Bp}$$

where ρ_A and ρ_B represent the concentrations of the respective components in the shield-

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ing materials. This function shows the change which takes place in the functional $J_{n,\gamma}$ when a unit of substance B is substituted for a unit of substance A where

$$J_{n,\gamma} = \sum_i \beta_i k_i \iiint \frac{\Phi(r_s, \mu, E)}{4\pi r_s^2} \Sigma_{n,\gamma}(r_s, E) e^{-\int_{r_s}^{H} \mu^i(r)dr} B_i d\mu dE dV$$

describes the production and yield of capture γ-radiation. In this formula $\Phi(r_s, \mu, E)$ is neutron flux; $\Sigma_{n,\gamma}(r_s, E)$ is the macroscopic cross section of radiation neutron capture; β_i is the yield of γ-quanta of given energy E_i per captured neutron; k_i is the dose created by a unit flux of γ-quanta of energy E_i; $\mu^i(r)$ is the total coefficient of linear absorption of γ-quanta of initial energy E_i; B_i is the dose factor for accumulation of γ-quanta of initial energy E_i. The function $f(x)$ was experimentally studied by introducing a hydrogen-containing substance into a nickel screen made up of sheets measuring 80×80×0.8 cm for an overall thickness of 25 cm. This specimen was surrounded by a neutron shield for reducing the background. A single-crystal scintillation gamma-spectrometer with a crystal of sodium iodide was used for measuring the number of capture γ-quanta with an energy of greater than 7 Mev produced by radiation capture of neutrons in the nickel. Curves are given showing neutron hazard functions with respect to capture γ-radiation. These functions describe the contribution of neutrons to the stream of γ-quanta behind the screen as a function of the neutron energy and inlet coordinate. The results show that the addition of hydrogen-containing material through nearly the entire thickness of the nickel layer increases the inten-

L 05057-67
ACC NR: AT6027932

sity of capture γ-radiation behind the screen. An exception to this rule is the first 6 cm of nickel where the neutron hazard function for low energy particles is less than the function for high energy neutrons so that a good moderator placed at these points reduces the intensity of capture γ-quanta behind the screen. The authors thank V. V. Orlov, V. Ya. Purko and S. G. Tsypin for interest in the work. Orig. art. has: 4 figures, 17 formulas.

SUB CODE: 18/ SUBM DATE: 12Jan66/ ORIG REF: 005

Card 3/3

S/869/62/000/000/010/012
B102/B186

21,1000

AUTHORS: Shikhov, S. B., Abagyan, L. P.

TITLE: Method for establishing the multi-group constants in the resonance range when the heterogeneous effects are taken into account

SOURCE: Teoriya i metody rascheta yadernykh reaktorov; sbornik statey. Ed. by G. I. Marchuk. Moscow. Gosatomizdat, 1962, 200 - 222

TEXT: A method is developed which makes it possible to calculate explicitly how the cross section, averaged over the lethargy interval of the group and over the lattice cell volume depends on the isotope composition in the lump and on the cell parameters. The lump effect throughout the whole range of well resolved ($\Gamma \ll D$) resonance levels of the heavy isotope is taken into account, as well as the lattice parameters and the Doppler effect. The averaging of the multi-group constants in the resonance range extending from the upper thermal limit E_c down to ~400 ev is discussed first. The cross section averaged over the lattice cell volume for the k-th group is

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Method for establishing the ....

$$\langle \Sigma_r \rangle_k = \frac{\int_V dV \int_{\Delta u_k} \Sigma_r(\vec{r},u)\varphi(\vec{r},u)du}{\int_V dV \int_{\Delta u_k} \varphi(\vec{r},u)du} \quad , \qquad (1),$$

where Δu_k is the lethargy interval of the group, $\varphi(\vec{r},u)$ the neutron flux per lethargy unit, $\Sigma_r(\vec{r},u)$ the resonance capture cross section and φ_o the neutron flux in the absence of resonance absorption. Expressed in terms of the effective resonance integral of the k-th group $I^r_{eff,k}$, (1) is written in the form

$$\langle \Sigma_r \rangle_k = \frac{\rho \frac{V_\sigma}{V} \frac{I^r_{eff,k}}{\Delta u_k}}{1 - \frac{1}{\Sigma_{sp}} \rho \frac{V_\sigma}{V} \frac{I^o_{eff,k}}{\Delta u_k}} \quad (7) \text{ or } \langle \Sigma_{r,l} \rangle_k = \frac{\rho_l \frac{V_\sigma}{V} \frac{I^{r,l}_{eff,k}}{\Delta u_k}}{1 - \frac{1}{\Sigma_{sp}} \sum_i \rho_i \frac{V_\sigma}{V} \frac{I^{o,i}_{eff,k}}{\Delta u_k}} \quad (8),$$

where ρ is the nuclear density of the resonance absorber and V_σ the lump

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volume; the superscript o denotes always the sum of the fission, resonance-scattering and radiative-capture components. l enumerates the resonance absorbers of nuclear density ρ_i, if the lump contains a mixture of them. Analogous relations are obtained for the diffusion coefficient of a homogeneous medium or homogeneous isotope mixture:

$$\langle D\rangle_k = \frac{\int_V dV \int_{\Delta u_k} \frac{1}{3\Sigma_{tr}(u)}\,\varphi(\vec{r},u)\,du}{\int_V dV \int_{\Delta u_k} \varphi(\vec{r},u)\,du} \quad (10)$$

$$\langle D\rangle_k = \frac{\int_{\Delta u_k} \frac{\Sigma_{sp}}{\Sigma^2(u)}\,du}{\Delta u_k\left[1 - \frac{1}{\Sigma_{sp}}\sum_i \rho_i \frac{I^{o,i}_{eff,k}}{\Delta u_k}\right]} \quad (11).$$

The effective resonance integral

$$I^r_{eff} = \int_{E_o-\Delta E}^{E_o+\Delta E} \sigma_r \frac{\Sigma_{sp}}{\Sigma}\frac{dE}{E} + \frac{1}{d}\int_{E_o-\Delta E}^{E_o+\Delta E} \sigma_r \frac{\Sigma^o}{\Sigma^2}\left(1 - e^{-d\Sigma}\right)\frac{dE}{E}, \quad \Delta E \ll \Delta E_{eff}; \quad (12)$$

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which consists of volume and surface components, is then studied. A series of relationships are derived, which hold if the effective resonance width $\Delta E_{eff} < \xi E$, where $\xi = \Gamma/\Delta$, $\Delta = 2\sqrt{E_0 kT/A}$. Among others, the expression

$$I^r_{eff} = \frac{\sum_i I^{r,i}_R}{\left[1+x\,\sigma^{0,r}_1(T)\right]^{1/2}} + \frac{x\sum_i I^{r,i}_R\,\sigma^0_i}{\left[1+x\,\sigma^{0,r}_2(T)\right]^{3/2}}\,\frac{F(\alpha)}{2\alpha} \qquad (29)$$

is obtained if more than one level exists, where $I^r_R = \frac{\pi}{2}\frac{\Gamma\sigma^{0,r}}{E_0}$ is the total resonance integral of the r-th resonance interaction effect, $x = \rho/\Sigma_{sp}$, $\alpha = d\Sigma_{sp}$, $\sigma^{0,r} = \sigma^0\Gamma_r/\Gamma$, and

$$F(\alpha) = \phi(\sqrt{\alpha})(1+2\alpha) + \frac{2}{\pi}\sqrt{\alpha}e^{-\alpha} - 2\alpha; \qquad \phi(\alpha) = \frac{2}{\sqrt{\pi}}\int_0^\alpha e^{-y^2}\,dy \qquad (21).$$

In the case of low-lying broad levels, where ξ is large and the temperature effect can be neglected,

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$$I_{eff}^{r} = \sigma^{o,r} \int_{E_c}^{E_o+\Delta E} \frac{dE}{\left\{ x\sigma^o + \left[1 + \left(\frac{E - E_o}{\Gamma/2} \right)^2 \right] \right\} \sqrt{\frac{E}{E_o}}\, E} +$$

$$+ \frac{\sigma^{o,r}}{\alpha} x\sigma^o \int_{E_c}^{E_o+\Delta E} \frac{\left(1 - \exp\left\{ -\alpha \left[1 + \frac{x\sigma^o}{1 + \left(\frac{E - E_o}{\Gamma/2} \right)^2} \cdot \sqrt{\frac{E_o}{E}} \right] \right\} \right) dE}{\left\{ x\sigma^o + \left[1 + \left(\frac{E - E_o}{\Gamma/2} \right)^2 \right] \right\} \sqrt{\frac{E}{E_o}}^2 E}, \qquad (40).$$

Finally, a large number of numerical calculations are carried out, and the relationships

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$$\langle \Sigma_{r,l} \rangle_k = \frac{\rho_l \frac{V_\delta}{V} \frac{I^{r,l}_{eff,k} + I^{r,l}_{R1,k}}{\Delta u_k}}{1 - \sum_i \rho_i \frac{V_\delta}{V} \frac{1}{(\Sigma_{sp} + \Sigma_a^{(k)} + \tilde{\Sigma}_a^{(k)})} \frac{I^{o,i}_{eff,k}}{\Delta u_k}} \qquad (43)$$

$$\Sigma_d^{(k)} = \frac{\overline{\xi \Sigma_{sp}(u)}}{\Delta u_k} \frac{1}{1 - \sum_i \rho_i \frac{V_\delta}{V} \frac{1}{(\Sigma_{sp} + \Sigma_a^k + \tilde{\Sigma}_a^k)} \frac{I^{o,i}_{eff,k}}{\Delta u_k}} \qquad (44)$$

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$$\langle D\rangle_k = \frac{1 - \frac{1}{\Sigma_{sp}+\Sigma_a^{(k)}+\tilde{\Sigma}_k^{(k)}} \sum_i \rho_i \frac{I_{R,k}^{o,i}}{2\,\Delta u_k} \left\{ \frac{3}{\sqrt{1+x\sigma_1^o}} + \frac{1}{(1+x\sigma_2^o)^{3/2}} \right\}}{3(\Sigma_{sp}+\Sigma_a^{(k)}+\tilde{\Sigma}_a^{(k)}) \left[1 - \frac{1}{\Sigma_{sp}+\Sigma_a^{(k)}+\tilde{\Sigma}_a^{(k)}} \sum_i \rho_i \frac{I_{eff,k}^{o,i}}{\Delta u_k} \right]} \quad (46)$$

are given, where

$$x = \frac{\rho}{\Sigma_{sp} + \Sigma_a^{(k)} + \tilde{\Sigma}_a^{(k)}}, \quad (47)$$

$$\alpha = d(\Sigma_{sp} + \Sigma_a^{(k)} + \tilde{\Sigma}_a^{(k)}). \quad (48)$$

$\Sigma_a^{(k)} \varphi_k = \varphi_o \sqrt{\Sigma_{sp}(u_k)}$ (age approximation). There are 13 figures and 4 tables.

Card 7/7

ABAGYAN, L.P.

Determining the effect of cross section blocking with allowance for Doppler broadening of resonances within the whole range of energies. Atom. energ. 14 no.6:583-584 Je '63. (MIRA 16:7)
(Nuclear reactors) (Uranium isotopes)

L 24504-65 EPF(c)/EPF(n)-2/EPR/EWT(m) Pr-4/Pa-4/Pu-4 SSD/AFWL
ACCESSION NR AM5013596 BOOK EXPLOITATION S/

[illegible] Bondarenko, [illegible]

[illegible] constants for the design of nuclear reactors [illegible]

[illegible] nuclear engineering, nuclear reac[illegible]

[illegible] abridged)

SUB CODE: NP SUBMITTED: 24Dec63 NR REF SOV: 171
OTHER: 407

Card 1/1

L 44460-66 EWT(m)

ACC NR: AR6028127 SOURCE CODE: UR/0058/66/000/005/V021/V021

AUTHOR: Abagyan, L. P.; Zakharova, S. M. 35

ORG: none B

TITLE: Profiles of neutron reactions 19 accompanied by the escape of charged particles

SOURCE: Ref. zh. Fizika, Abs. 5V168

REF SOURCE: Byul. Inform. tsentra po yadern. dannym, vyp. 2, 1965, 167-226

TOPIC TAGS: neutron reaction, charged particle, particle escape

ABSTRACT: The paper contains experimental data on profiles of reactions accompanied by the escape of charged particles for elements with Z = 13 to 20 (according to materials published prior to May 1965), presented in the form of tables and graphs. [Translation of abstract] [DW]

SUB CODE: 20/

Card 1/1

L 04221-67 EWT(m)/EWP(t)/ETI IJP(c) JD/JG

ACC NR: AR6031861 SOURCE CODE: UR/0058/66/000/006/V058/V058

AUTHOR: Zakharova, S. M.; Abagyan, L. P. 14 B

TITLE: Parameters of single resonance levels

SOURCE: Ref. zh. Fizika, Abs. 6V488

REF SOURCE: Byul. Inform. tsentra po yadern. dannym, vyp. 2, 1965, 25-75

TOPIC TAGS: single resonant level, fissionable isotope

ABSTRACT: The parameters of single-resonance levels of fissionable isotopes are presented on the basis of papers published before May 1965. Isotopes U^{233}, U^{234}, U^{236}, Np^{237} and Am^{243} are not included in the table. [Translation of abstract] 19 27 27 27

SUB CODE: 18, 20/

Card 1/1 pla

SUBASHIYEV, V. K.; ABAGYAN, S. A.

"Band structure in $GaAs_x$, P_{1x} crystals."

report submitted for Intl Conf on Physics of Semiconductors, Paris, 19-24 Jul 64.

L 14044-65 EWT(1)/EPA(s)-2/EWT(m)/T P(t) IJP(c)/

ACCESSION NR: AP4044964 S/0181/64/006/009/2852/2853

[illegible] GaAs-GaP system

SOURCE: Fizika tverdogo tela, v. 6, no. 9, 1964, 2852-2853

TOPIC TAGS: gallium arsenide phosphide, conduction band, crystal lattice parameter, crystal composition, absorption band

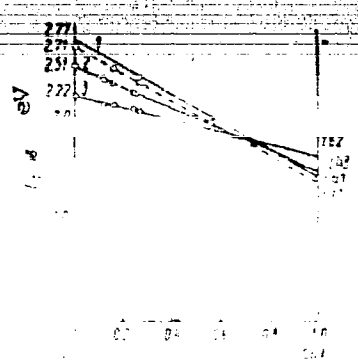
ABSTRACT: To reconcile some discrepancies in the published data, the authors investigated the minima of the conduction band, using crystals grown from the gaseous phase. The crystal composition was determined by x-ray measurements of the lattice parameter directly on the investigated sample, assuming the lattice parameter to be a linear function of the composition. The procedures used to control the crystal quality, the change in the absorption, and to de-

Card 1/4

termine the energy position of the minimum are the same as described by two of the authors earlier (S. A. Abagyan, V. K. Subashiyev, DAN SSSR, v. 156, 763, 1964). The results, based on the investigation of the intrinsic absorption edge of the crystals, show that the minimum of the conduction band in GaAs as well as the minima in crystals of composition $GaAs_{x}P_{1-x}$ differ from the published values. The data have also shown the presence of a minimum at 1.48 [illegible] at the points (111) and which is capable of explaining the slight [illegible] of the effective mass near the [illegible] minimum. It is also [illegible] from the data that in n-type crystals of mixed composition [illegible] the minima are sufficiently [illegible] another should display effects connected with repopulation of electrons from one minimum to another. This may result from shifts of the minima relative to each other with changes in pressure or with changes in [illegible] The authors thank L. M. [illegible] for help with the [illegible] in the reduction of the [illegible] data." Orig. [illegible]

Card 2/4

ACCESSION NR: AP4044964 ENCLOSURE: 01



Energy position of minima of conduction band in the $GaAs_xP_{1-x}$ system as a function of the molar composition.

T = 290°K, 1 - (000), 2 - (111), 3 - (100)

Card 4/4

L 11050-65 EWT(m)/EWP(t)/EWP(b) IJP(c)/ASD(a)-5/AFWL/ESD(gs)/ESD(t) JD

ACCESSION NR: AP4046644

AUTHORS: Abagyan, S. A.; Subashiyev, V. K. (B)

TITLE: Direct transitions and spin orbit coupling of the valence band in GaP

SOURCE: Fizika tverdogo tela, v. 6, no. 10, 1964, 3168-3170

TOPIC TAGS: gallium phosphide, valence band, spin orbit coupling, absorption coefficient, absorption band

ABSTRACT: In order to determine the width of the forbidden band for direct transitions in GaP, and to determine the spin-orbit splitting of the valence band in k = 0, the authors investigated the spectral variation of the absorption coefficient in the direct transition region. In view of the large absorption coefficient for direct transitions (10^4--10^5 cm^{-1}), the measurements were made with very thin samples (2--5 microns thick), comprising single-crystal

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L 11080-65
ACCESSION NR: AP4046644

plane-parallel plates of GaP freely suspended in special mounts. The measurement procedure was described by the authors earlier (DAN SSSR v. 156, 763, 1964). The dependence of the absorption coefficient on the photon energy in the transition region is shown in Fig. 1 of the enclosure. At approximately 2.[illegible] eV the absorption band connected with the direct transitions begins. The edge of a second band, beginning somewhat above 2.8 eV, assumed to be due to direct transitions of electrons [illegible] the conduction band (split off as a result of the spin-orbit interaction), is also noticeable. Reasons are advanced for assuming that the sharp rise in absorption at the edge of the direct transitions [illegible] with the appearance [illegible] based on [illegible] that the [illegible] transitions [illegible] temperature is [illegible]

[illegible] (Proc. Phys. Soc. v. [illegible], 324, 196[illegible]). There are grounds

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L 11080-65
ACCESSION NR: AP4046644

3

for assuming that the gaps will not vary much with temperature. "The authors thank A. V. Lishina for supplying the crystals and G. A. Chalikyan for help with the measurements." Orig. art. has: 1 figure.

ASSOCIATION: Institut poluprovodnikov AN SSSR (Institute of Semiconductors AN SSSR)

SUBMITTED: 19May64 ENCL: 01

SUB CODE SS NR REF SOV: 003 OTHER: 008

Card 3/4

L 11080-65
ACCESSION NR: AP1046644

ENCLOSURE: 01

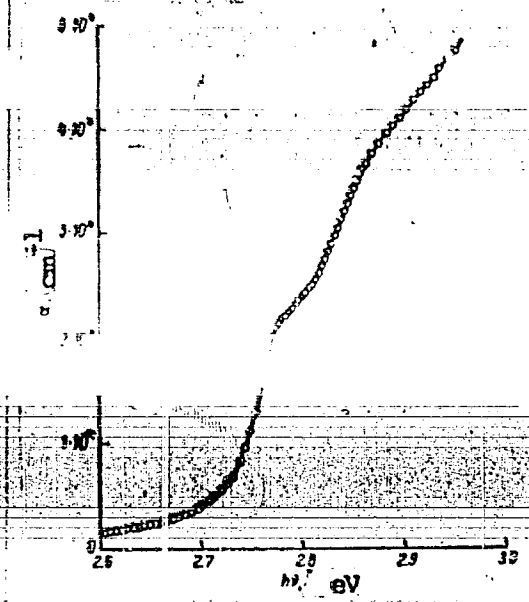

Fig. 1. Dependence of the absorption coefficient on the photon energy in the region of direct transitions for GaP (T = 290 K)

Card 4/4

L 11077-65 EWT(m)/EWP(t)/EWP(b) IJP(c)/RAEM(a)/APWL/ASD/ESD(c)/ESD(gs)/
ESD(t) JD

ACCESSION NR: AP4046652 S/0181/64/006/010/3186/3188

AUTHORS: Abagyan, S. A.; Kubashiyev, V. K.; Singkhal, S. P. (6)

TITLE: On the nature of the maxima of ultraviolet reflection in GaP and $GaAs_xP_{1-x}$

SOURCE: Fizika tverdogo tela, v. 6, no. 10, 1964, 3186-3188

TOPIC TAGS: gallium arsenide phosphide, gallium phosphide, gallium arsenide phosphide, ultraviolet reflection, reflection coefficient

ABSTRACT: To trace the variations of the position of the maximum of ultraviolet reflection in GaP and $GaAs_xP_{1-x}$ with variation of the composition, measurements were made of the reflection spectrum in crystals of GaP, GaAs and some crystals $GaAs_xP_{1-x}$. The square of the reflection coefficient was measured by a "samples in and out" procedure, in which the intensity of the light reflected from two

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L 11077-65
ACCESSION NR: AP4046652

approximately parallel samples was compared with the intensity of the incident radiation. The monochromator was the optical part of the SF-4 spectrophotometer with a hydrogen lamp. The receiver was an FEU-19 or FEU-39 photomultiplier. The regions of the first and second maximum of the ultraviolet reflection were investigated. The composition of the crystals was determined from the lattice parameter. The results for GaP and GaAs agreed with the published data (J. C. Philips, Phys. Rev. v. 133, 2A, A452, 1964). Comparison of the slopes of the plots of the positions of the reflection maxima vs. composition with the slopes of the corresponding curves for the minima it is concluded that the first maximum of reflection in GaP and in the mixed-composition crystals is [illegible] electron transitions at points in the band structure lying in the <111> directions, while the second is connected with transitions of electrons in the minimum at (100). Orig. art. has 1 figure.

ASSOCIATION: Institut poluprovodnikov AN SSSR, Leningrad (Institute

Card 2/3

L 11077-65
ACCESSION NR: AP4045652

of Semiconductors AN SSSR)

SUBMITTED: 01Jun64 ENCL: 00

SUB CODE: GP, SS NR REF SOV: 003 OTHER: 003

Card 3/3

ACCESSION NR: AP4041138 S/0020/64/156/004/0763/0765

AUTHOR: Abagyan, S. A.; Subashiyev, V. K.; Konstantinov, B. P.

TITLE: Structure of the conduction band in gallium phosphide

SOURCE: AN SSSR. Doklady*, v. 156, no. 4, 1964, 763-765

TOPIC TAGS: gallium phosphide conduction band, semiconductor, forbidden band, absorption edge, conductivity band structure

ABSTRACT: Since the structure of gallium phosphide bands is not yet well known, the authors undertook detailed measurements and analysis of the absorption edge in the region from 2 to 2.75 ev. The transmission measurements were made on specimens of 5 to 200 μ thick, obtained either by natural growth, or by cutting and polishing. The absorption was measured with the IR-10 spectrophotometer. In calculating the absorption coefficient α, the multiple reflection was taken into consideration. The frequency dependence of α agrees with the theoretically calculated for indirect permitted transitions. The width of the forbidden band was found (at room temperature) to be 2.21 ± 0.01 ev. The absorption edge can be explained by two indirect and one direct transition. The authors are grateful to

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ACCESSION NR: AP4041138

A. V. Lishina for supplying the crystals and to P. Singkhall for help with the measurements. Orig. art. has: 2 figures.

ASSOCIATION: Institut poluprovodnikov, Akademii nauk SSSR (Institute for Semiconductors, Academy of Sciences, SSSR)

SUBMITTED: 30Dec63 ENCL: 00

SUB CODE: SS NO REF SOV: 000 OTHER: 007

Card 2/2

L 23082-65 ENA(k)/EWT(l)/EWT(m)/EEC(t)/T/EWP(t)/EEC(b)-2/EWP(b) IJP(c) JD

ACCESSION NR: AP5003476 S/0181/65/007/001/0200/0206

AUTHOR: Abagyan, S. A.; Gorodetskiy, S. M.; Zhukova, T. B.; Zaslavskiy, A. I.; Lishina, A. V.; Subashiyev, V. K.

TITLE: X-ray and optical properties of gallium arsenide-gallium phosphide crystals mixed in various concentrations

SOURCE: Fizika tverdogo tela, v. 7, no. 1, 1965, 200-206

TOPIC TAGS: gallium arsenide, gallium phosphide, solid solution, lattice constant, refraction index, phonon, absorption spectrum, laser material, band structure, p n junction

ABSTRACT: In x-ray and optical studies of $GaAs_xP_{1-x}$ monocrystals it is shown that solid solutions of GaAs-GaP are sufficiently perfect [illegible] the lattice constant and index of refraction were [illegible] with the molar composition of mixed $GaAs_xP_{1-x}$ crystals. Absorption bands observed in the [illegible] lattice vibration. Since the coefficient [illegible] the peaks [illegible] are related to two phonon processes. Orig. art. has: 7 figures. [LS]

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L 23082-65

ACCESSION NR: AP5003436 S/0181/65/007/001/0200/0206

ASSOCIATION: Institut poluprovodnikov AN SSSR, Leningrad (Institute of Semiconductors, AN SSSR)

SUBMITTED: 12Jul64 ENCL: 00 SUB CODE: SS

NO REF SOV: 002 OTHER: 008 ATD PRESS: 3173

Card 2/2

ABAGYAN, V.Ya.

Formation of the backed-up race of low-pressure dams after the example of the Kzyl-Orda Hydroelectric Power Station. Vop. gidr. no.11:58-61 '63. (MIRA 17:6)

ANATOLIYEV, Fedor Alekseyevich; ABAGYANTS, G.A., doktor tekhn. nauk, retsenzent; KOSTYGOV, Ye.D., inzh., retsenzent; ABRAMOVICH, G.A., doktor tekhn. nauk, prof., nauchn. red.; OZEROVA, Z.V., red.; CHISTYAKOVA, R.K., tekhn. red.

[Heat exchangers in marine steam-power plants] Teploobmennye apparaty sudovykh parosilovykh ustanovok. Leningrad, Sudpromgiz, 1963. 494 p. (MIRA 16:10)
(Boilers, Marine) (Heat exchangers)

COUNTRY : USSR
CATEGORY : Pharmacology and Toxicology. Chemotherapeutical Preparations. Antibiotics V
ABS. JOUR. : RZhBiol., No. 1 1959, No. 4653

AUTHOR : Abagyants, V.S.
INST. : Clinic of Infectious Diseases, Tashkent Medical* Institute, AS UzSSR
TITLE : Combined Method of Treatment of Various Clinical Forms of Erysipelas with Antibiotics

ORIG. PUB. : Tr. Kliniki infekts. bolezney, Tashkentsk. med. in-t, 1955, Tashkent, AN UzSSR, 199, 130-133
ABSTRACT : Intracutaneous infiltration of penicillin in combination with peroral administration of synthomycin, produces a good effect in all clinical forms of erysipelas.

*Institute, AS UzSSR

CARD: 1/1

39

ABAGYANTS, V.S.

Phagocytic reaction in diphtheria. Med. zhur. Uzb. no.2:68 F '60.
(MIRA 15:2)

1. Iz kafedry detskikh infektsionnykh bolezney (zav. - prof. Kh.A. Yunusova) Tashkentskogo gosudarstvennogo meditsinskogo instituta.
(DIPHTHERIA--PREVENTIVE INOCULATION)

LOGIN... ...; ...GYANTS, V.S.

...bined therapy for Botkin's disease in children. Sbor.nauch.trud. TashGMI 22:212-219 '62. (MIRA 18:10)

1. Kafedra detskikh infektsiy (zav. kafedroy - prof. Kh.A.Yunusova) Tashkentskogo gosudarstvennogo meditsinskogo instituta.

YUNUSOVA, Kh.A., prof.; ARAGYANTS V.S.

Use of the preparation ASM-41 in treating Botkin's disease in children. Sbor.nauch.trud.TashGMI 22:284-290 '62.

(MIRA 18:10)

1. Kafedra detskikh infektsiy (zav. kafedroy - prof. Kh.A.Yunusova) Tashkentskogo gosudarstvennogo meditsinskogo instituta.

ABAIMOV, S.Ye.

Snip's arrangement for a deep-sea anchor. Trudy GOIN no.30:155-158 '55. (MLRA 9:8)

1. Vladivostokskoye upravleniye gidrometeorologicheskoy sluzhby.
(Anchors)

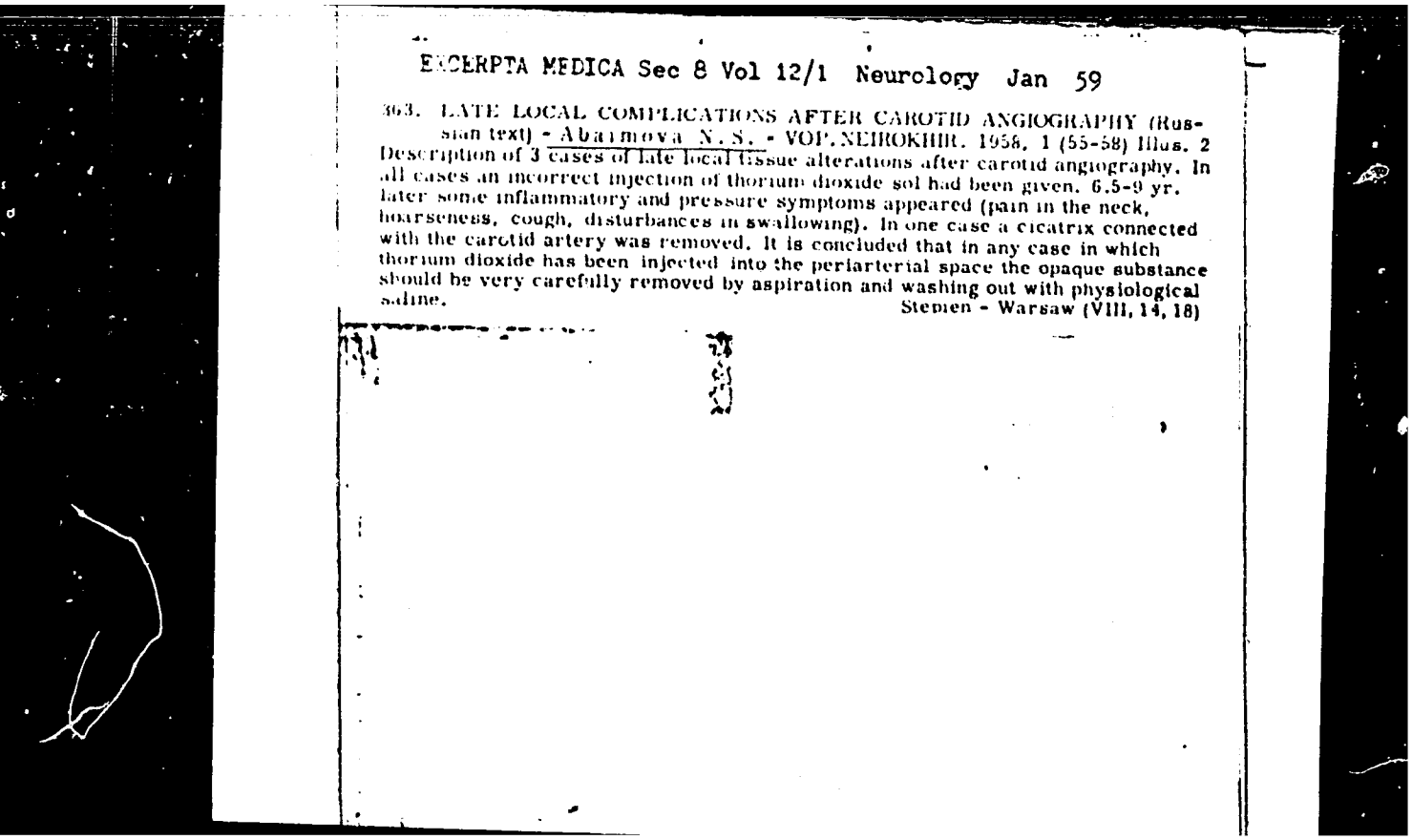
KOKSHARSKAYA, K.B.; ABAIMOVA, G.P.

Tabulata fauna in Paleozoic sediments in the central part of the Tas-Khayakhtakh Range (Yakut A.S.S.R.). Nauch.soob. IAFAN SSSR no.7:11-38 '62. (MIRA 16:3)
(Tas-Khayakhtakh Range region--Corals, Fossil)

ABAIMOVA, N. S.

Certain peculiarities of cerebrospinal fluid changes following excision of cerebral arachnoidendotheliomas. Vopr. neirokhir. 15 no. 5:47-50 Sept-Oct 1951 (CIML 21:3)

1. Of the Institute of Neurosurgery imeni Academician N. N. Burdenko (Director -- B. G. Yegorov, Corresponding Member of the Academy of Medical Sciences USSR) of the Academy of Medical Sciences USSR.



EXCERPTA MEDICA Sec 8 Vol 12/1 Neurology Jan 59

363. LATE LOCAL COMPLICATIONS AFTER CAROTID ANGIOGRAPHY (Russian text) - Abaimova N. S. - VOP. NEIROKHIR. 1958, 1 (55-58) Illus. 2

Description of 3 cases of late local tissue alterations after carotid angiography. In all cases an incorrect injection of thorium dioxide sol had been given, 6.5-9 yr. later some inflammatory and pressure symptoms appeared (pain in the neck, hoarseness, cough, disturbances in swallowing). In one case a cicatrix connected with the carotid artery was removed. It is concluded that in any case in which thorium dioxide has been injected into the periarterial space the opaque substance should be very carefully removed by aspiration and washing out with physiological saline.

Stemien - Warsaw (VIII, 14, 18)

ABAISHVILI, D.S.

Problem concerning the joining of reservoirs in mountainous areas. Trudy Inst.energ.AN Gruz.SSR 16:169-180 '62. (MIRA 16:4)
(Reservoirs) (Water supply)

SOLOMONIYA, O.G.; ABAISHVILI, D.S.

Some parameters of the effectiveness of sprinkler irrigation. Trudy Inst. energ. AN Gruz. SSR 17:195-200 '63.
(MIRA 17:7)

ERLITZ, Ivan, ing.; ABAITANCEI, Dan, ing.; SOARE, Iosif, ing.

The effectiveness of measures destined to improve the quality of tractor engines in service. Metalurgia constr mas 14 no.6:515-520 Je '62.

1. Institutul politehnic, Brasov.

ABAITANCEI, D., ing.

Determination of specific pressures on crankshaft journals in motorcar engines. Constr mas 16 no.5:257-264 My'64

SCHENKER, Gunther; SESERMAN, Ion; ABAITANCEI, Dan; TARTA, Ion

Performances of the four-stroke carburetor engines for automobiles as influcenced by the geometry of the admission collector. Constr. mas 16 no.8:426-430 Ag '64.

UR/0018/64/000/008/0426/0430

ACCESSION NR: AP[illegible]

[illegible] automobile engines

SOURCE: Construzione de masini, no. 8, 1964, 426-430

TOPIC TAGS: gasoline engine, mechanical engineering

Abstract [Authors' English summary modified]: The authors tested the performance of a four-stroke spark-ignition engine with four cylinders equipped with admission collectors of various sizes, shapes and preheating intensities, and determined the collector geometry that [illegible] amount of disturbing energies [illegible]

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: IE, PR

REF SOV: 000 OTHER: 000

L 36006-66 EWT(d)/EWT(m)/EWP(f)/T-2

ACC NR: AP5027330 SOURCE CODE: RU/0018/66/000/001/0003/0006

AUTHOR: Mardarescu, Radu; Abaitancei, Dan

ORG: none

TITLE: Graphic methods for determining some kinematic values of the connecting rod system in piston engines

SOURCE: Constructia de masini, no. 1, 1966, 3-6

TOPIC TAGS: piston engine, engine crankshaft, engine component

ABSTRACT: The authors present a method for the graphic determination on the basis of bicentric Brix diagrams of the acceleration and displacement of the piston in the eccentric connecting rod-crankshaft mechanism and of the acceleration of the piston in the central mechanism. Numerical examples of the determinations are given. Orig. art. has: 6 figures and 9 formulas. [Based on authors' Eng. abst.] [JPRS: 36,559]

SUB CODE: 21, 13 / SUBM DATE: none / ORIG REF: 001 / SOV REF: 001
OTH REF: 001

Card 1/1

UDC: 621.43.011:518.4

85153

9.4300(1138,1143,1144)

3/181/60/002/009/044/047/XX
B004/B070

AUTHORS: Abakarov, Dzh. I. and Seiydov, Yu. M.

TITLE: Theory of the Magnetic Susceptibility of the Polaron

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 9, pp. 2264-2267

TEXT: The purpose of the work was to calculate the statistical sum of the Hamiltonian $\hat{H}$ expressing the interaction of the electron with the lattice vibrations in a homogeneous magnetic field, and to construct a thermodynamics of the polaron in the magnetic field. The statistical sum is written as $Z = \mathrm{Sp}\exp(-\lambda\hat{H})$, where $\lambda = 1/kT$. From this, the following equation is obtained:

$$Z^{(2)} = Z^{(0)}(2\beta)^{3/2}/(\sqrt{\pi}).(\alpha/\mathrm{sh}\beta)\left[\int_0^1 (\mathrm{ch}\beta v)/(\sqrt{1-v^2}).1/(2\sqrt{1-A})\ln\frac{1+\sqrt{1-A}}{1-\sqrt{1-A}}\right]$$

(9). Here, $A = (2/\gamma)(\mathrm{ch}\gamma - \mathrm{ch}\gamma v)/(\mathrm{sh}\gamma(1-v^2))$, $\gamma = h\omega_0/2kT$, and $\beta = \lambda h\omega_k/2$. The limiting cases were studied. 1) $\gamma \ll 1$, $\beta \ll 1$. Then $E = E_0(\mathcal{H}) - \sqrt{\pi}(h\omega/\lambda)^{1/2}(1+\gamma^2/72)\alpha$ (12). For $\gamma = 0$, equation (12) goes

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Theory of the Magnetic Susceptibility of the Polaron

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S/181/60/002/009/044/047/XX
B004/B070

over into the equation obtained by Professor S. I. Pekar in Ref. 1. 2) Equation (13) is written for $\gamma \gg 1$ and $\beta \gg 1$. The energy is calculated under the assumption that only a quasi-particle, a polaron, is present. It is now assumed that in the conduction band, N such particles are present which do not interact with one another. The following equation is obtained for the susceptibility: $X = X_0 + (\sqrt{\pi}\, n\mu_B^2 f^2/18)\cdot(2\beta)^{1/2} I_1(\beta)\alpha/\mathrm{sh}\beta(16)$, where X_0 is the susceptibility due to the free electrons and $X - X_0$ is the change brought about by the polarons. From $X_0 = (n\mu_B^2)/(kT)(1 - f^2/3)$, the effective polaron mass is obtained as $M = m(1 + \alpha/6)$ (19). There are 4 Soviet references.

ASSOCIATION: Institut fiziki AN Azerbaydzhanskoy SSR (Institute of Physics of AS of the Azerbaydzhanskaya SSR)

SUBMITTED: February 3, 1960

Card 2/2

ABAKARA, M.A.

Factors affecting changes in the Caspian Sea level. Izv. AN Azerb. SSR. Ser. geol.-geog. nauk no.1:111-117 '64. (MIRA 18:6)

L 05623-67 EWT(m)/EWP(t)/ETI IJP(c) JD

ACC NR: AP6024495 SOURCE CODE: UR/0181/66/008/007/2234/2237

58
56
B

AUTHOR: Bagduyev, G. B.; Abakarov, S. A.

ORG: Dagestan State Pedagogical Institute im. G. Tsadasa, Makhachkala (Dagestanskiy gosudarstvennyy pedagogicheskiy institut)

TITLE: Electric properties of tellurium with iodine impurities

SOURCE: Fizika tverdogo tela, v. 8, no. 7, 1966, 2234-2237

TOPIC TAGS: tellurium, electric conductivity, Hall constant, impurity conductivity, semiconductor impurity

ABSTRACT: In view of the scanty published information on the properties of tellurium with impurities, the authors have investigated the influence of a large quantity of iodine on the electric conductivity (σ) and on the Hall constant (R) of tellurium over a wide range of temperatures, using a large number of samples from different sources. In the case of iodine impurities amounting to < 0.02%, the results obtained for R are in agreement with the published data. The intrinsic conductivity of pure samples begins at a temperature below 220K, and the energy gap amounts to 0.33 ev. In the case of strongly doped samples, the intrinsic conductivity begins at temperatures above 330K and the gap increases with increasing iodine content. The results are similar to those obtained elsewhere for selenium. The author thank Kh. I.

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L 056.3-67

ACC NR: AP6024495

2

Amirkhanov for interest and R. I. Bashirov for help with the work. Orig. art. has: 2 figures and 2 tables

SUB CODE: 20/ SUBM DATE: 01Nov65/ ORIG REF: 009/ OTH REF: 008

Card 2/2 egk

ABAKAROV, U. A.

Abakarov, U. A. -- "Sources of Infection and Methods of Transmission of Bacterial Dysentery under Housing Conditions among Children up to Three Years of Age." Min Health USSR. Central Inst for the Advanced Training of Physicians. Moscow, 1956. (Disseration For the Degree of Candidate in Medical Sciences).

So: Knizhnaya Letopis', No. 11, 1956, pp 103-114

ABAKAROV, U.A.

Sources of infection of infants with bacillary dysentery at home. Zhur. mikrobiol. epid. i immun. 29 no.11:119-120 N '58. (MIRA 12:1)

1. Iz sanitarno-epidemiologicheskoy stantsii Stalinskogo rayona Moskvy.
(DYSENTERY, BACILLARY, in inf. & child, sources of infect (Rus))

17(1,2) SOV/16-59-6-28/46

AUTHOR: Abakarov, U.A.

TITLE: The Epidemiology of Bacterial Dysentery. Author's Summary.

PERIODICAL: Zhurnal mikrobiologii, epidemiologii i immunobiologii, 1959, Nr 6, p 121 (USSR)

ABSTRACT: As a check on his earlier (1954) epidemiological studies on the incidence of dysentery, the author undertook an analysis of the statistical and epidemiological data of dysentery in a wide district and over a long period of time (1951-1957). The figures, although incomplete, showed that the incidence of dysentery was greatest in children up to 3 years and least in the age group 4-14 years. Starting with the age of 15, the incidence gradually increased to a maximum at the age of 20-29 years. This second maximum was, however, much lower than that noted in the very young age group. This might be explained by the greater opportunities for infection at this age, i.e. young children's habit of sucking their fingers and other objects, and because of their more intimate contact with surrounding things and people. Infection at this age seems to confer an immunity which

Card 1/2

lasts for 5-7 years and more. This indicates that prophylactic measures against dysentery should be aimed mainly at the under three-year old age group.

ASSOCIATION: Ukhtomskaya sanitarno-epidemiologicheskaya stantsiya Moskovskoy oblasti (Ukhtoma Sanitary-epidemiological Station of the Moscow Oblast)

SUBMITTED: July 8, 1957

KORSHAKOVA, A.S.; BOLDYREV, T.Ye.; ALEKSANYAN, A.B.; SHATROV, I.I.; LEYTMAN, L.V.; FROLOV, V.I.; SEMINA, N.A.; DEVOYNO, L.V.; SIZINTSEVA, V.P.; BATURINA, L.M.; ABAKAROV, U.A.; GRINAVTSEVA, V.P.; MEDZHIDOV, V.; KORSHUNOVA, N.A.

Studies on the reactogenic properties of Gamaleia IEM polyvaccine. Zhur.mikrobiol.,epid.i immun. 30 no.11:37-41 N '59. (MIRA 13:3)

1. Iz Instituta epidemiologii i mikrobiologii imeni Gamalei AMN SSSR.
(DYSENTERY BACILLARY immunol.)
(TYPHOID immunol.)
(PARATYPHOID FEVERS immunol.)
(TETANUS immunol.)
(VACCINATION)

ABAKAROVA, U.M. (Makhachkala)

Sensitization to penicillin and other preparations. Vest. derm. i ven. 38 no.12:72-73 D '64. (MIRA 18:8)

ABAKELIA, M. S.

Abakelia, M.S. "The Organization of Gravitational Observatories in Transcaucasia." Problemy Sovetskoi Geologii, Moscow, vol. 6, No. 5, 1936, pp. 452-454.

ABASKELIA, M. S.

Abskelia, M. S. "Geological Principles Characterizing the Khram Magnetic Anomaly." Trudy Tbilisskogo Geofizicheskogo Instituta, Tiflis (Tiflis), Vol. 3, 1939, pp. 1-19.

ABAKELIYA, M. S.

Abakelia, M. S. "Contribution to the Geological Interpretation of the Results of the Micro-Magnetic Survey in the Chitauri Manganese Region." Trudy Tbilisskogo Geofizicheskogo Instituta, Tbilisi (Tiflis), vol. 4, 1939, pp. 109-126.

ABAKELIA, M. S.

Abakelia, M. S. "Gravitational Maps of the Gruzian (Georgian) Soviet Socialist Republic." Izvestiia Gruzinskogo Industrial'nogo Instituta, Tbilisi, vol. II, 1 39, pp. 21-45.

ABAKELIYA, V. S.

Abakelia, V. S. "The Magnetic Susceptibility of Serpentine from the Dzirul'sk Crystalline Massif. Soobshchenie Gruzinskogo Filiala Akad. Nauk S.S.S.R., vol. 1, No. 5, 1940, pp. 343-345.

ABAKELIYA, M. S.

Abakelia, M. S., and Balavadze, B. K. "The Caparetsk Gravity Anomaly and an Attempt at its Interpretation." Soobshchenie Gruz'inskogo Filiala Akad. Nauk S.S.S.R., Tbilisi (Tiflis), vol. 1, No. 8, 1940, pp. 583-587.

ARAKELIA, M.S.

Problem of the Kyurdamir gravitational range in Transcaucasia.
Trudy Inst.geofiz.AN Gruz.SSR 10:125-191 '47. (MLRA 9:8)
(Transcaucasia--Gravity)

ABAKELIYA, N. S.

Abakelina, N. S. - "New data on the gravitational field in Tbilisi," Soobshch. Akad. nauk Gruz. SSR, 1948, No. 8, P. 471-72, - Bibliog: 6 items

SO: U-4934, 29 Oct 53, (Letopis 'Zhurnal 'Nykh Statey, No. 16, 1949).

ABAKELIA, M.S.; BALAVADZE, B.K.

Density of rocks at Kakhetia. Trudy Inst.geofiz.AN Gruz.SSR 11: 111-135 '49. (MLRA 9:8)
(Kakhetia--Prospecting--Geophysical methods)

KEBULADZE, V.V.; ABAKELIA, M.S.

Electrometric prospecting results at a polymetallic deposit in Georgia. Trudy Inst.geofiz.AN Gruz.SSR 11:137-153 '49.(MLRA 9:8)
(Georgia--Prospecting--Geophysical Methods)

ABAKELIA, M.S.

Problem of the geological interpretation of the Transcaucasian lowland regional gravitational field. Trudy Inst.geofiz.AN Gruz.SSR 14:219-228 '55. (MLRA 9:9)

1.Gruzinskiy politekhnicheskiy institut imeni S.M.Kirova, Tbilisi.
(Transcaucasia--Gravity)

AUTHOR: Abakelia, M.S. SOV/49-59-8-26/27

TITLE: Problems of a Geophysical Method of Surveying of the Poladaursk Iron Ore Deposits in Georgian SSR (On the 25th Anniversary of the First Expedition of the Institute of Geophysics, Ac.Sc., Georgian SSR)

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geofizicheskaya, 1959, Nr 8, pp 1258-1260 (USSR)

ABSTRACT: The geological and geophysical investigations of the unexploited deposits produced the following results:
1. Different points of the area containing ore 3 to 4 km wide and 15 km long were established.
2. A stratification of the gematite and magnetite was determined.
3. The thickness of the deposits was defined.
4. The electric and magnetic characteristics of the deposits were determined.
The magnetic properties of some ore samples are tabulated on p 1259. The method is described as a typical survey producing positive results.
There are 1 table and 4 Soviet references.

Card 1/1

S/270/63/000/001/017/024
A001/A101

AUTHOR: Abakeliya, M. S.

TITLE: On studying the problem of secular gravity variations in the Caucasus

PERIODICAL: Referativnyy zhurnal, Geodeziya, no. 1, 1963, 37 - 38, abstract 1.52.247 ("Tr. Gruz. politekhn. in-ta", 1960, no. 1(67), 41 - 46, Georgian summary)

TEXT: The author points out the expediency of studying secular (non-periodic) gravity variations with time and their relation to movements of the Earth's crust in tectonically active regions. Such a relation is theoretically possible, but for the time being it has not been confirmed by observations of proper accuracy. In 1948 - 1952 the author conducted higher precision gravimetric observations using gravimeters of Norgard and other systems. The observations were performed on the territory of Tbilisi at points fixed with special marks and along the Military-Georgian road, at leveling beacons. The accuracy of measurements is estimated to be ± 0.12 - ± 0.54 mgal. It is supposed

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S/270/63/000/001/017/024
A001/A101

On studying the problem of...

to perform repeated gravimetric measurements at the same points with the aim of studying secular gravity variations.

B. Andreyev

[Abstracter's note: Complete translation]

Card 2/2

BUKHNIKASHVILI, A.V.; ABAKELIA, M.S.

Mikhail Zosimovich Nodia; on his 70th birthday and 45th anniversary of his scientific and pedagogical activities. Trudy Inst. geofiz. AN Gruz. SSR 19:259-264 '60. (MIRA 14:9)
(Nodia, Mikhail Zosimovich, 1891-)

ABAKELIA, M. S.

Classification of magnetic and gravity anomalies. Trudy Inst. geofiz. AN Gruz. SSR 20:5-11 '62. (MIRA 16:1)

(Magnetic anomalies--Classification)
(Gravity anomalies--Classification)

GABUNIIA, M.S.

Seventy-fifth birthday of Professor K.E. Gabuniia. Trudy GPI [Gruz.] no.2:141-145 '63. (MIRA 17:9)

ABAKELIYA, M.S.; BUKHNIKASHVILI, A.V.; TABAGUA, G.G.; KHVITIYA, G.P.; DZHASHI, G.G.

Use of electric prospecting at the Chiatur manganese deposit. Trudy Inst. geofiz. AN Gruz. SSR 21:99-120 '63.
(MIRA 18:12)

ACC NR: AT6034507 SOURCE CODE: UR/0000/66/000/000/0092/0096

AUTHOR: Abakelia, M. S.

ORG: none

TITLE: Problem of the thinning out of the granitic layer in the Transcaucasus

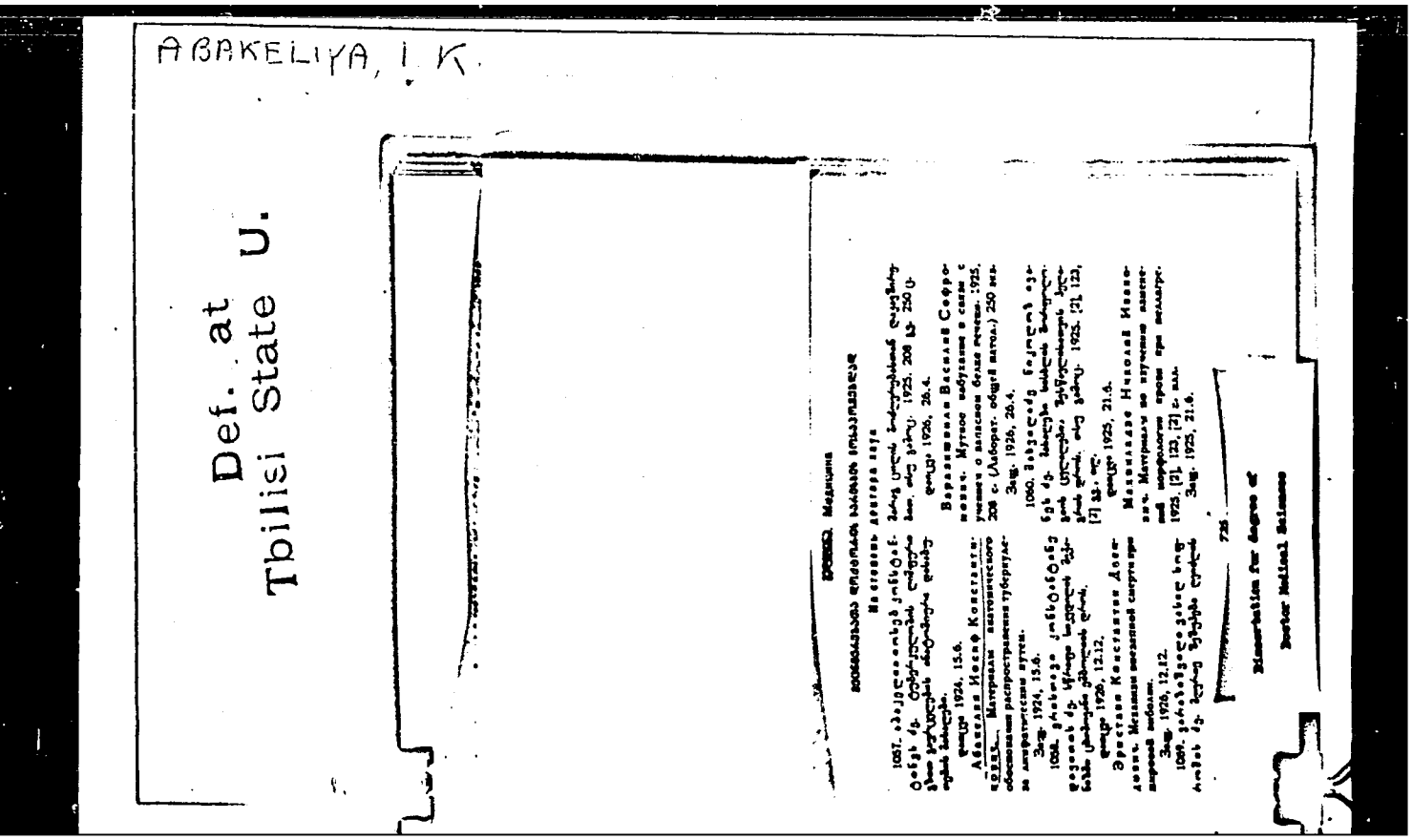
SOURCE: AN SSSR. Otdeleniye nauk o Zemle. Nauchnyy sovet po kompleksnym issledovaniyam zemnoy kory i verkhney mantii. Glubinnoye stroyeniye Kavkaza (Abyssal structure of the Caucasus). Moscow, Izd-vo Nauka, 1966, 92-96

TOPIC TAGS: earth crust, Mohorovicic discontinuity, Conrad discontinuity, seismic profiling/ Transcaucasia

ABSTRACT: An analysis is made of the structure of the earth's crust and, especially, of the granitic layer in the Transcaucasus on the basis of geologic data and seismic profiling at five stations: 1) South Caspian, 2) Kirovabadskiy, 3) Borzhomskiy, 4) Tkibul'skiy, and 5) Black Sea. Data obtained from the land stations (2, 3, 4) show the parallel nature of the Mohorovicic and Conrad discontinuities. The Caspian and Black Sea seismic profiling data show the thinning out of the granitic layer and density and velocity property changes both horizontally and vertically within the granitic and basaltic layers. A composite master table lists the data obtained from each station.

SUB CODE: 08/ SUBM DATE: 26Feb66. ORIG REF: 023/

Card 1/1



ABAKELIYA, I. K.

Def. at
Tbilisi State U.

ABAKELIYA, TS.I.

ODISHVILI, G.Ya.; ABAKELIYA, TS.I.

Leucocytosis and motor activity of the stomach. Soob.AN Gruz.SSR 14 no.9:553-560 '53. (MLRA 7:5)

1. Akademiya nauk Gruzinskoy SSR, Institut eksperimental'noy i klinicheskoy khirurgii i gematologii, Tbilisi. Predstavleno deystvitel'nym chlenom Akademii K.D.Eristavi.
(Leucocytosis) (Stomach)

AFAKELIYA, Ts. I.

AFAKELIYA, Ts. I. -- "Reflex Effects of the Stomach on the Composition of the Peripheral Blood in Certain Forms of Anemia." Georgian State Publishing House for Medical Literature. Tbilisi State Medical Inst. Tbilisi, 1955. (Dissertation for the Degree of Candidate in Medical Sciences)

SO: Knizhnaya Letopis', No 1, 195(

ABAKELIYA, TS.I.; GACHECHILADZE, M.G.

Peptic leucocytosis. Soob.AN Gruz.SSR 16 no.8:641-646 '55.
(MLRA 9:5)

1. Akademiya nauk Gruzinskoy SSR, Institut klinicheskoy i eksperimental'noy khirurgii i gematologii, Tbilisi. Predstavleno deystvitel'nym chlenom Akademii K.D. Eristavi.
(Leucocytosis)

USSR/Human and Animal Physiology (Normal and Pathological). Blood. Blood Diseases.

Abs Jour: Ref Zhur-Biol., No 17, 1958, 79475.

Author : Abakeliya, Ts. I.
Inst :
Title : Reflex Influences from the Stomach on the Composition of Peripheral Blood During Several Forms of Anemia.

Orig Pub: Tr. In-ta eksperim. i klinich. khirurgii i gematol. AN GruzSSR, 1957, 7, 97-102.

Abstract: Regular reflex changes in the composition of peripheral blood (temporary drop in the content of Hb and the number of erythrocytes, phases of leukopenia and subsequent leukocytosis) were observed in 10 healthy persons as a result of the stimulation of the mechanoreceptors of the stomach (inflation of a

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USSR/Human and Animal Physiology (Normal and Pathological). Blood. Blood Diseases. T

Abs Jour: Ref Zhur-Biol., No 17, 1958, 79475.

balloon introduced with a probe). In 30 cases with Anderson-Dirmer disease, the reaction of red blood cells was perverted. In 30-60 minutes, the quantity of erythrocytes increased 33-70%, the quantity of Hb decreased 8-10%, the number of reticulocytes increased 45-65%; the quantity of leukocytes decreased 29-50%. In the leukocytic formula, the number of immature and stab-nuclear leukocytes increased markedly. The phase of leukocytosis was absent. In 19 less serious cases of the disease, normalization of the reaction of red blood cells to stimulation of the stomach receptors was observed after treatment, but the leukocytic reaction was perverted as before.

Card : 2/3

USSR/Human and Animal Physiology (Normal and Pathological). T
Blood. Blood Diseases.

Abs Jour: Ref Zhur-Biol., No 17, 1958, 79475.

In 3 out of 10 patients with chloranemia, and in 4 out of 10 with gastritis, impairment of the leukocytic reaction was observed (in a majority of cases, it was restored in the process of treatment). Perversion of the reflex reaction of the peripheral blood in the stimulation of receptors of the stomach occurs during impairment of the functional condition of the stomach, or during pathological changes of blood formation.

Card : 3/3

KVALIASHVILI, A.A.; CHKAREULI, Ye.I.; GEORGADZE, G.Ye.; ABAKELIYA, TS.I.

Effect of hibernation on radiation sickness in the Transcaucasian hamster. Soob. AN Gruz.SSR 20 no.5:601-607 My '58. (MIRA 11:10)

1. AN GruzSSR, Institut eksperimental'noy i klinicheskoy khirurgii i gematologii, Tbilisi. Predstavleno akademikom K.D.Eristavi.
(HIBERNATION) (HAMSTERS) (RADIATION SICKNESS)

ABAKELIYA, TS.I.; DZHAPARIDZE, T.N.; GACHECHILADZE, M.G.

Effect of hypothermia on changes in blood protein composition during radiation sickness. Soob. AN Gruz. SSR 21 no.1:109-114 Jl '58. (MIRA 11:10)

1. AN GruzSSR, Institut eksperimental'noy i klinicheskoy khirurgii i gematologii, Tbilisi. Predstavleno akademikom K.D.Eristavi.
(HYPOTHERMIA) (RADIATION SICKNESS) (BLOOD PROTEINS)

ABAKELIYA, TS.I.

Studying blood coagulation in connection with hypothermia. Soob. AN Gruz.SSR 21 no.3:343-347 S '58. (MIRA 12:4)

1. AN GruzSSR, Institut eksperimental'noy i klinicheskoy khirurgii i gematologii, Tbilisi. Predstavleno akademikom K.D. Eristavi.
(HYPOTHERMIA)
(BLOOD--COAGULATION)

IOSELIANI, G.D.; ABAKELIYA, TS.I.

Modification in blood coagulation and protein fractions in experimental Pick's disease. Soob.AN Gruz.SSR 22 no.5: 587-591 My '59. (MIRA 12:11)

1. Akademiya nauk Gruzinskoy SSR, Institut eksperimental'noy i klinicheskoy khirurgii i gematologii, Tbilisi. Predstavleno akademikom K.D.Eristavi.
(BLOOD--COAGULATION) (BLOOD PROTEINS)

SEMENSKAYA, Ye.M.; ARAKELIYA, TS.I.; KIGURADZE, E.Sh.; LARIONOVA, N.G.

Producing experimental leukemia in rats and mice by means of 9,10-dimethyl-1,2-benzanthracene. Soob.AN Gruz.SSR 24 no.5:601-606 My '60. (MIRA 13:8)

1. Institut eksperimental'noy i klinicheskoy khirurgii i gematologii AN GruzSSR, Tbilisi. Predstavleno akademikom K.D.Eristavi.
(BENZANTHRACENE) (LEUKEMIA)

ABAKELIYA, TS.I.; DZHIBLADZE, N.V.; TSINTSADZE, N.A.; GEORGADZE, G.Ye.

Composition of peripheral blood and marrow in the Transcaucasian hamster. Soob. AN Gruz. SSR 27 no.5:619-624 N '61. (MIRA 15:1)

1. AN Gruzinskoy SSR, Institut eksperimental'noy i klinicheskoy khirurgii i gematologii, Tbilisi. Predstavleno akademikom K.D. Eristavi.

(GEORGIA--HAMSTERS)
(MARROW)
(BLOOD--ANALYSIS AND CHEMISTRY)

SEMENSKAYA, Ye.M.; ABAKELIYA, TS.I.; LARIONOVA, N.G.; KIGURADZE, E.Sh.

Producing an experimental leukemia model in mice. Trudy Inst. eksp. i klin. khir. i gemat. AN Gruz. SSR 11:151-154 '63.
(MIRA 17:8)

ABAKELIYA, TS.I.; ZAVRIYEVA, N.M.

Implantation of bone marrow in mice. Trudy inst. eksp. i klin. khir. i gemat. AN Gruz. SSR 11:169-172 '61. (MIRA 17:8)

GOGRICHISHVILI, T.M.; ABAKELIYA, TS...

Normal biochemical indices of the blood in experimental animals. Trudy inst. eksp. i klin. khir. i gemat. AN Gruz. SSR 11:213-217 '63. (MIRA 17:8)

ODISHVILI, Georgiy Yasonovich; ABAKELIYA, TS.I., red.

[Some functional and morphological changes in the stomach following extensive resection of the small intestine] Nekotorye funktsional'nye i morfologicheskie izmeneniia zheludka posle obshirnoi rezektsii tonkogo kishechnika. Tbilisi, Izd-vo "Metsniereba," 1964. 155 p. (MIRA 17:12)

SEMENSKAYA, Ye.M.; ABAKELIYA, TS. I.; LARIONOVA, N.G.; TSOMAYA, I.S.

Effect of some vitamins on the development and course of experimental leucosis in mice. Soob. AN Gruz. SSR 33 no. 2: 461-468 F '64. (MIRA 17:9)

POPOV, V.B.; ABAKIN, S.V.

Mass vaccination of sheep against brucellosis with dry brucellosis vaccine from strain no. 19. Veterinariia 33 no. 10:33-39 O '56. (MLRA 9:10)

1. Nachal'nik veterinarnogo otdela Stavropol'skogo krayevogo upravleniya sel'skogo khozyaystva (for Popov)
2. Starshiy veterinarnyy vrach Stavropol'skogo krayevogo upravleniya sel'skogo khozyaystva (for Abakin)
(Stavropol Territory--Brucellosis in sheep--Preventive inoculation)

ABAKIN, S.V., ZAMAKHAYEVA, E.I. and CHERNYSHEVA, M.I.

"Study of the Br. abortus 104-M vaccine strain in an experiment conducted on sheep..."
Veterinariya, vol. 39, no. 3, March 1962 pp. 51

L 63392-65 EWT(1)/EWA(j)/EWA(b)-2 JK

ACCESSION NR: AP5020097 UR/0016/65/000/008/0099/0101

615.371 : 576.851.42

AUTHOR: Taran, I. F.; Zamakhayeva, Ye. I.; Abakin, S. V.; Polyakova, A. M.;

TOPIC TAGS: brucella, vaccine, immunology, brucellosis

ABSTRACT: An experimental study on guinea pigs of the *Br. abortus* 104-M vaccinal strain showed that it possesses satisfactory immunogenic properties, viability, and capacity to induce active immunological reconstruction. Vaccine from *Br. abortus* 104-M proved to be harmless to sheep in doses of 2 to 10 billion microbial cells [illegible] stronger immunity than did *Br. abortus* 19. Sheep that received this [illegible] gave [illegible] than did the [illegible] brucellosis among those handling the animals. No side reactions were noted after subcutaneous inoculation [illegible] million microbial cells, [illegible] to 300 million

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L 63392-65

ACCESSION NR: AP5020097

2

cells produced severe general and local reactions. On the other hand, epicutaneous inoculation of doses ranging from 1 to 10 billion microbial cells were harmless and without side effects. Brucellosis incidence among vaccinated individuals was 2-5 times less than among non-vaccinated individuals. Orig. art. has: 2 tables.

ASSOCIATION: Nauchno-issledovatel'skiy protivochumnyy institut Kavkaza i

Card 2/2

RYUKHIN, N.V., kand. tekhn. nauk; ABAKINA, G.N., inzh.

Improving the quality of paper used as film support. Bum. prom. 33 no.12:8-10 D '58. (MIRA 11:12)

1.TSentral'nyy nauchno-issledovatel'skiy institut tsellyuloznoy i bumazhnoy promyshlennosti.
(Photography--Printing papers)

RYUKHIN, N.V., kand.tekhn.nauk; ARAKINA, G.N., starshiy inzhener

Raise the technical indices of map paper. Bum.prom. 36 no.2:7-8 F '61. (MIRA 14:2)

(Paper)

ABAKOV, A.; VOL'FBERG, D.

Rapids of the St.Lawrence River. Vokrug sveta no.9:20-22 S '54.
(MLRA 7:10)
(Great lakes) (St.Lawrence River--Navigation)

SUNDETOV, A.Zh.; ABAKOV, I.M.

Experience in the detection of malignant neoplasms. Trudy Inst. klin. i eksp. khir. AN Kazakh. SSR 8:19-20 '62.
(MIRA 17:7)

ABAKOV, U. B., Candidate Med Sci (diss) -- "Osteoarticular tuberculosis in northern Kirgizia and the organization of the fight against it". Frunze, 1958. 16 pp (Kirgiz State Med Inst), 200 copies (KL, No 22, 1959, 120)

ABAKSHIN, B.I.

New station building on Komsomol Square. Gor.khoz.Mosk.
36 no.2:22-23 F'62. (MIRA 16:2)
(Moscow--Public buildings)

ABAKSHIN, D.M.

Experimental investigation of stresses and deformations in basic parts of crankshaft presses. Kuz.-shtam. proizv. no.4:23-30 Ap '61. (MIRA 14:3)

(Power presses)
(Strains and stresses)

ABAKSHIN, D.M.

Answering N.P.Veselov. Kuz.-shtam.proizv. 4 no.2:44 F '62.
(MIRA 15:2)

(Power presses) (Veselov, N.P.)

ORLOV, P.G., inzh.; LUZIN, I.L., inzh.; ARAKSHIN, D.M., inzh.

Designing an electric drive for universal crank presses. Vest. mashinostr. 42 no.8:37-38 Ag '62. (MIRA 15:8)
(Power presses—Electric driving)

ABAKSHIN, D.M.

Experimental investigation of crank press pneumatic systems with interlocking of clutch and brake. Kuz.-shtam.proizv. 5 no.3:22-25 Mr '63. (MIRA 16:4)
(Power presses) (Pneumatic control)

ABAKSHINA, E.N.

ABAKSHINA, E.N.

Purification of diffusion juice in Swedish sugar mills. Sakh. prom. 31 no.10:72-75 O '57. (MIRA 11:1)
(Sweden--Sugar industry)

ABAKUMENKO, I.

Organize the production of nuts used for fire-hose joints. Mast. ugl. 6 no.3:23 Mr '57. (MLRA 10:4)

1. Glavnyy mekhanik shakhty no.1-bis tresta Krasnodonugol' Voroshilovgradskoy oblasti.
(Bolts and nuts)